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(iv) Correct a component or system malfunction and show that with a correctly functioning system or component the failed vehicle meets applicable standards (or family emission limits, as appropriate) for which it was originally tested. The Administrator may require a new emission data vehicle, of identical vehicle configuration (or evaporative/refueling vehicle configuration, as applicable) to the failed vehicle, to be operated and tested for compliance with the applicable standards (or family emission limits, as appropriate) for which the failed vehicle was originally tested.

[59 FR 16293, Apr. 6, 1994, as amended at 62 FR 54719, Oct. 21, 1997; 75 FR 22980, Apr. 30, 2010]

§ 86.098–35 Labeling.

Section 86.098–35 includes text that specifies requirements that differ from §§ 86.095–35 and 86.096–35. Where a paragraph in § 86.095–35 or § 86.096–35 is identical and applicable to § 86.098–35, this may be indicated by specifying the corresponding paragraph and the statement “[Reserved]. For guidance see § 86.095–35.” or “[Reserved]. For guidance see § 86.096–35.”.

(a) introductory text through (a)(1)(iii)(B) [Reserved]. For guidance see § 86.095–35.

(a)(1)(iii)(C) Engine displacement (in cubic inches or liters), engine family identification and evaporative/refueling family identification.

(a)(1)(iii)(D)–(L) [Reserved]. For guidance see § 86.095–35.

(a)(1)(iii)(M) For model year 1998 light-duty vehicles, a clear indication of which test procedure was used to certify the evaporative/refueling family, e.g., “Evaporative /refueling Family xx (§ 86.130–96 procedures)” or “Evaporative /refueling Family xx (§ 86.130–78 procedures).”

(a)(1)(iii)(N) [Reserved]. For guidance see § 86.096–35.

(a)(2) heading through (a)(2)(iii)(K) [Reserved]. For guidance see § 86.095–35.

(a)(2)(iii)(L) [Reserved]

(a)(2)(iii)(M)–(a)(2)(iii)(N) [Reserved]. For guidance see § 86.095–35.

(a)(2)(iii)(O)–(a)(2)(iii)(P) [Reserved]. For guidance see § 86.096–35.

(a)(3) heading through (a)(4)(iii)(F) [Reserved]. For guidance see § 86.095–35.

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(a)(4)(iii)(G) [Reserved]. For guidance see § 86.096–35.

(b)–(i) [Reserved]. For guidance see § 86.095–35.

(j) The Administrator may approve in advance other label content and formats provided the alternative label contains information consistent with this section.

[59 FR 16294, Apr. 6, 1994, as amended at 70 FR 72927, Dec. 8, 2005]

§ 86.099–8 Emission standards for 1999 and later model year light-duty vehicles.

(a)(1)(i)–(ii) [Reserved]

(iii) CST emissions from gasoline-fueled Otto-cycle light-duty vehicles measured and calculated in accordance with subpart O of this part may not exceed the standards listed in paragraphs (a)(1)(iii) (A) and (B) of this section.

(A) Hydrocarbons: 100 ppm as hexane.

(B) Carbon monoxide: 0.5%.

(2) [Reserved]

(3) The standards set forth in paragraph (a)(1)(iii) of this section refer to the exhaust emitted during the CST as set forth in subpart O of this part and measured and calculated in accordance with those provisions.

(b) Evaporative emissions from light-duty vehicles shall not exceed the following standards. The standards apply equally to certification and in-use vehicles. The spitback standard also applies to newly assembled vehicles. For certification vehicles only, manufacturers may conduct testing to quantify a level of nonfuel background emissions for an individual test vehicle. Such a demonstration must include a description of the source(s) of emissions and an estimated decay rate. The demonstrated level of nonfuel background emissions may be subtracted from emission test results from certification vehicles if approved in advance by the Administrator.

(1) *Hydrocarbons (for gasoline-fueled, natural gas-fueled, and liquefied petroleum gas-fueled vehicles).* (i)(A) For the full three-diurnal test sequence described in § 86.130–96, diurnal plus hot soak measurements: 2.0 grams per test.

(B) *For the supplemental two-diurnal test sequence described in § 86.130–96, diurnal plus hot soak emissions (gasoline-fueled vehicles only): 2.5 grams per test.*

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(ii) *Running loss test (gasoline-fueled vehicles only)*: 0.05 grams per mile.

(iii) *Fuel dispensing spitback test (gasoline-fueled vehicles only)*: 1.0 grams per test.

(2) *Total Hydrocarbon Equivalent (for methanol-fueled vehicles)*. (i)(A) For the full three-diurnal test sequence described in § 86.130-96, diurnal plus hot soak measurements: 2.0 grams carbon per test.

(B) For the supplemental two-diurnal test sequence described in § 86.130-96, diurnal plus hot soak measurements: 2.5 grams carbon per test.

(ii) Running loss test: 0.05 grams carbon per mile.

(iii) Fuel dispensing spitback test: 1.0 gram carbon per test.

(3) The standards set forth in paragraphs (b) (1) and (2) of this section refer to a composite sample of evaporative emissions collected under the conditions and measured in accordance with the procedures set forth in subpart B of this part.

(4) All fuel vapor generated in a gasoline- or methanol-fueled light-duty vehicle during in-use operations shall be routed exclusively to the evaporative control system (e.g., either canister or engine purge). The only exception to this requirement shall be for emergencies.

(5) [Reserved]

(6) Vehicles certified to the refueling standards set forth in paragraph (d) of this section are not required to demonstrate compliance with the Fuel Dispensing Spitback standards contained in paragraphs (b)(1)(iii) and (b)(2)(iii) of this section: *Provided*, that they meet the requirements of § 86.098-28(f).

(c) [Reserved]

(d) Refueling emissions from 1999 and later model year gasoline-fueled and methanol-fueled Otto-cycle and petroleum-fueled and methanol-fueled diesel-cycle light duty vehicles shall not exceed the following standards. The standards apply equally to certification and in-use vehicles.

(1) *Standards*—(i) *Hydrocarbons (for gasoline-fueled Otto gallon (0.053 gram per liter) of fuel dispensed.*

(ii) *Total Hydrocarbon Equivalent (for methanol-fueled vehicles)*. 0.20 gram per gallon (0.053 gram per liter) of fuel dispensed.

(iii) *Hydrocarbons (for liquefied petroleum gas-fueled vehicles)*. 0.15 gram per gallon (0.04 gram per liter) of fuel dispensed.

(iv) *Refueling receptacle (for natural gas-fueled vehicles)*. Refueling receptacles on natural gas-fueled vehicles shall comply with the receptacle provisions of the ANSI/AGA NGV1-1994 standard (as incorporated by reference in § 86.1).

(2)(i) The standards set forth in paragraphs (d)(1)(i) and (ii) of this section refer to a sample of refueling emissions collected under the conditions set forth in subpart B of this part and measured in accordance with those procedures.

(ii) For vehicles powered by petroleum-fueled diesel-cycle engines, the provisions set forth in paragraph (d)(1)(i) of this section may be waived: *Provided*, that the manufacturer complies with the provisions of § 86.098-28(f) of this subpart.

(3)(i) A minimum of the percentage shown in table A99-08 of a manufacturer's sales of the applicable model year's gasoline- and methanol-fueled Otto-cycle and petroleum- and methanol-fueled diesel cycle light-duty vehicles shall be tested under the procedures in subpart B of this part indicated for 1998 and later model years, and shall not exceed the standards described in paragraph (d)(1) of this section. Vehicles certified in accordance with paragraph (d)(2)(ii) of this section, as determined by the provisions of § 86.098-28(g), shall not be counted in the calculation of the percentage of compliance.

TABLE A99-08—IMPLEMENTATION SCHEDULE FOR LIGHT-DUTY VEHICLE REFUELING EMISSION TESTING

Model year	Sales percentage
1999	80
2000 and subsequent	100

(ii) Small volume manufacturers, as defined in § 86.094-14(b) (1) and (2), are exempt from the implementation schedule of table A99-08 of this section for model year 1999. For small volume manufacturers, the standards of paragraph (d) of this section, and the associated test procedures, shall not apply until model year 2000, when 100 percent compliance with the standards of this

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section is required. This exemption does not apply to small volume engine families as defined in § 86.094-14(b)(5).

[58 FR 16025, Mar. 24, 1993, as amended at 58 FR 58421, Nov. 1, 1993; 58 FR 16294, Apr. 6, 1994; 59 FR 48503, Sept. 21, 1994; 60 FR 43888, Aug. 23, 1995; 75 FR 22980, Apr. 30, 2010]

§ 86.099-9 Emission standards for 1999 and later model year light-duty trucks.

(a)(1)(i)-(iii) [Reserved]

(iv) CST emissions from gasoline-fueled Otto-cycle light-duty trucks measured and calculated in accordance with subpart O of this part may not exceed the standards listed in paragraphs (a)(1)(iv) (A) and (B) of this section.

(A) Hydrocarbons: 100 ppm as hexane.

(B) Carbon monoxide: 0.5%.

(2) [Reserved]

(3) The standards set forth in paragraph (a)(1)(iv) of this section refer to the exhaust emitted during the CST as set forth in subpart O of this part and measured and calculated in accordance with those provisions.

(b) Evaporative emissions from light-duty trucks shall not exceed the following standards. The standards apply equally to certification and in-use vehicles. The spitback standard also applies to newly assembled vehicles. For certification vehicles only, manufacturers may conduct testing to quantify a level of nonfuel background emissions for an individual test vehicle. Such a demonstration must include a description of the source(s) of emissions and an estimated decay rate. The demonstrated level of nonfuel background emissions may be subtracted from emission test results from certification vehicles if approved in advance by the Administrator.

(1) *Hydrocarbons (for gasoline-fueled, natural gas-fueled, and liquefied petroleum gas-fueled vehicles)*. (i)(A) For gasoline-fueled heavy light-duty trucks with a nominal fuel tank capacity of at least 30 gallons:

(1) For the full three-diurnal test sequence described in § 86.130-96, diurnal plus hot soak measurements: 2.5 grams per test.

(2) For the supplemental two-diurnal test sequence described in § 86.130-96, diurnal plus hot soak measurements: 3.0 grams per test.

(B) For all other light-duty trucks:

(1) For the full three-diurnal test sequence described in § 86.130-96, diurnal plus hot soak measurements: 2.0 grams per test.

(2) For the supplemental two-diurnal test sequence described in § 86.130-96, diurnal plus hot soak measurements (gasoline-fueled vehicles only): 2.5 grams per test.

(ii) *Running loss test (gasoline-fueled vehicles only)*: 0.05 grams per mile.

(iii) *Fuel dispensing spitback test (gasoline-fueled vehicles only)*: 1.0 grams per test.

(2) *Total Hydrocarbon Equivalent (for methanol-fueled vehicles)*. (i)(A) For heavy light-duty trucks with nominal fuel tank capacity of at least 30 gallons:

(1) For the full three-diurnal test sequence described in § 86.130-96, diurnal plus hot soak measurements: 2.5 grams carbon per test.

(2) For the supplemental two-diurnal test sequence described in § 86.130-96, diurnal plus hot soak measurements: 3.0 grams carbon per test.

(B) For all other light-duty trucks:

(1) For the full three-diurnal test sequence described in § 86.130-96, diurnal plus hot soak measurements: 2.0 grams carbon per test.

(2) For the supplemental two-diurnal test sequence described in § 86.130-96, diurnal plus hot soak measurements: 2.5 grams carbon per test.

(ii) Running loss test: 0.05 grams carbon per mile.

(iii) Fuel dispensing spitback test: 1.0 gram carbon per test.

(3) The standards set forth in paragraphs (b) (1) and (2) of this section refer to a composite sample of evaporative emissions collected under the conditions and measured in accordance with the procedures set forth in subpart B of this part.

(4) All fuel vapor generated in a gasoline- or methanol-fueled light-duty truck during in-use operations shall be routed exclusively to the evaporative control system (e.g., either canister or engine purge). The only exception to